

# INTERFACES DE USUARIO Y SOBERANÍA DIGITAL

Patrones oscuros  
para manipular a los  
más vulnerables

Lorena Sánchez Chamorro  
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Research Group

# Who am I?



Doctoral Researcher **Human-Computer Interaction** – University of Luxembourg  
Law & Politics – Universidad Carlos III de Madrid  
MSc Media and Communications Governance – London School of Economics

**Cybersecurity and Privacy Consultant**

**Digital Rights Activist**



@LastStrawberry



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RESEARCH FUND (FNR) IS/14717072



Luxembourg National  
Research Fund

# Session goals



1. Understanding **dark patterns** problem and how it may affect users (especially vulnerable ones)
2. Explaining different **nuances of online persuasion** and potential problems with regulation
3. Understanding the **role of developers**, their responsibilities in manipulating and how free culture plays a role

# Dark patterns: understanding the problem



Harry Brignull

‘ Dark patterns are tricks used in websites and apps that make you do things that you didn't mean to’

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‘Dark patterns are tricks used in websites and apps that make you do things that you didn't mean to’

Mathur definition

‘Dark patterns are user interface design choices that benefit an online service by coercing, steering, or deceiving users into making decisions that, if fully informed and capable of selecting alternatives, they might not make.’

# Influence through design



Coercion

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Coercion

'O te acuestas conmigo o te mato'



# Influence through design



Coercion

'O te acuestas conmigo o te mato'

Deception





# Influence through design



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'Acostarte conmigo te hará crecer'



# Influence through design



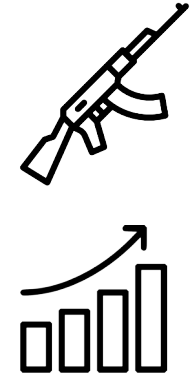
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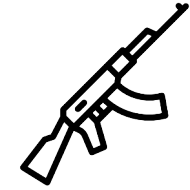


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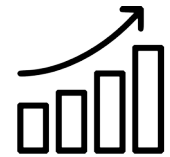
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'Practicar sexo es bueno para la salud, aquí  
tienes condones'





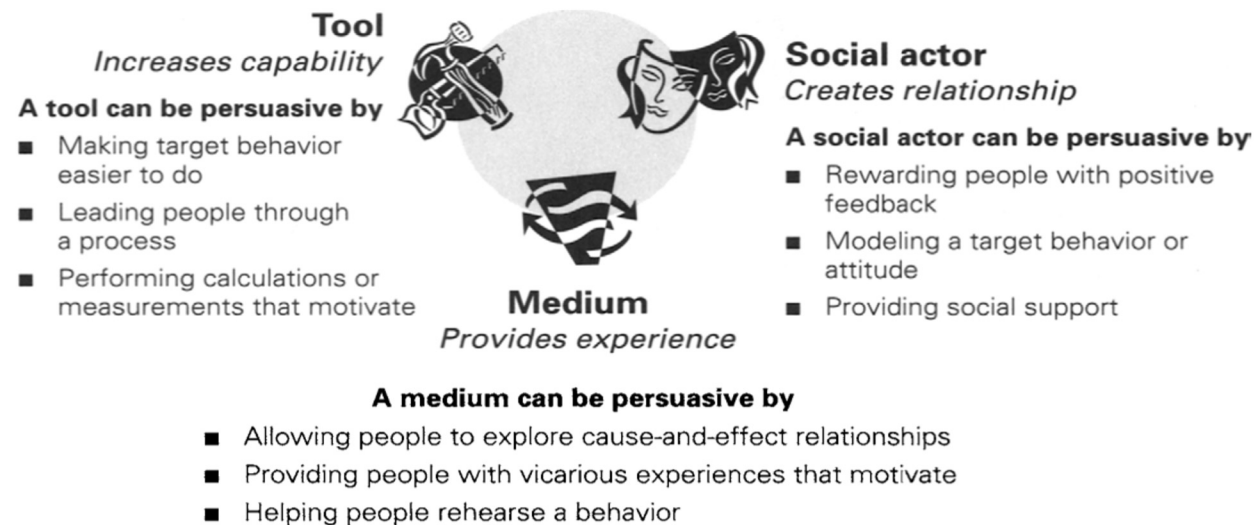


IS PERSUASION BAD PER SE?

# Persuasive design. A contested concept



“...technologies designed explicitly to influence and change people’s behaviour or attitudes” (Fogg, 2003)



**Figure 2.1** Computing technologies persuade in different ways, depending on their functional roles.



Prima

## 154v2 Motion Running Sneaker

Your feet will stay relaxed while you achieve your fitness goals. This lace-up sneaker is built with technologies that offer superior cushioning and rear-foot motion control for support and durability. The rubber outsole provides traction for a comfortable walk or run.



Details

Shipping

Return

### SELECT COLOR



### SELECT SIZE

39

40

41

42

**146\$** or 166\$ with insurance



**Add to basket**

Without insurance

**Add to basket**

With insurance



**Thanks for your feedback.**  
**You can pause or delete your account if you want to.**

**Disable account!**

[Delete account!](#)

All your profile data will be deleted permanently



**Do you want to view  
our new  
apparel brand?**

**[View Clothes](#)**

[No thanks, I like wearing lame clothes](#)





# A life cycle

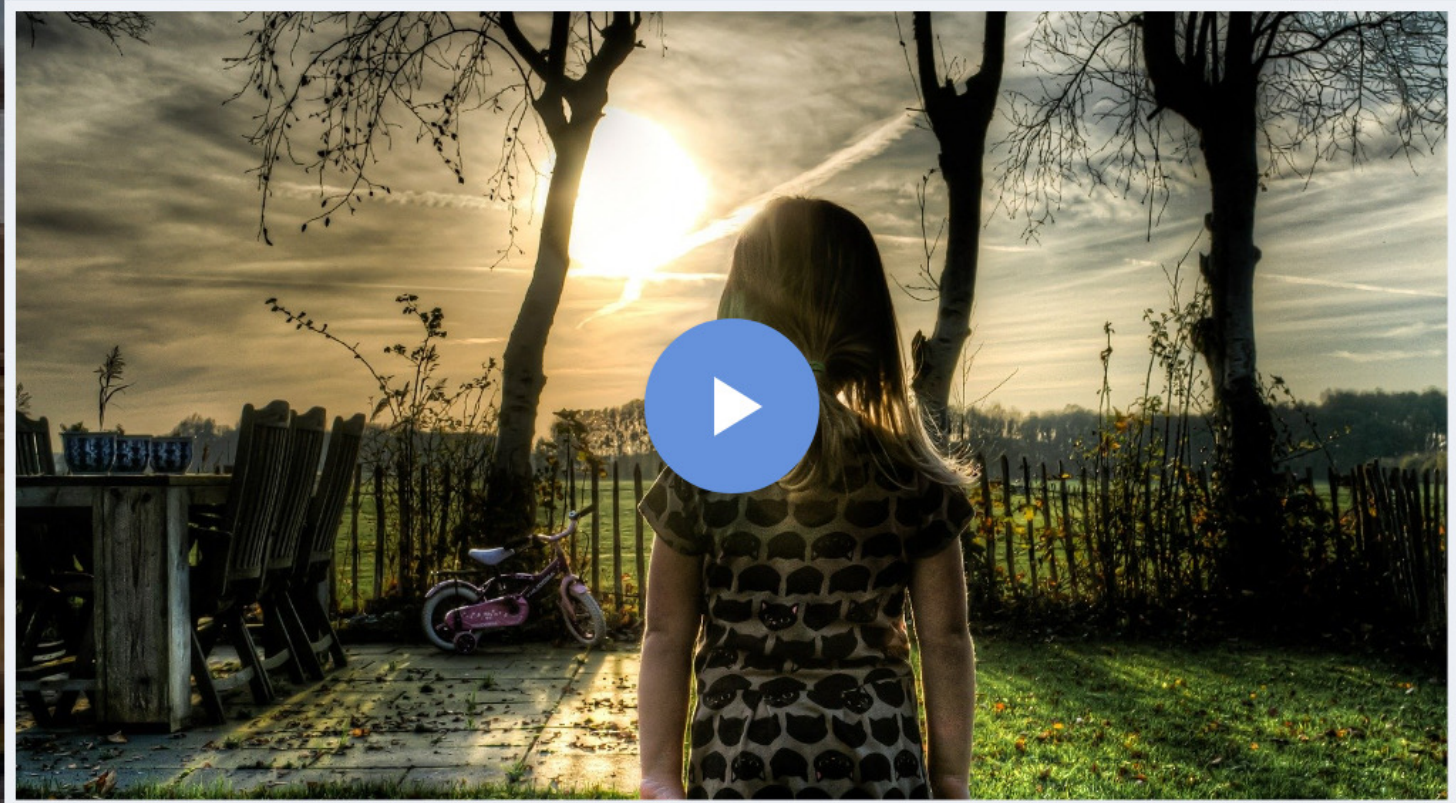
## Season 1 Ep.4 - A new hope

2020 TV-PG 25m

## Season 1 Ep.4 - A new hope

The various obsessions of Kerstin, Ariana and Gordo are driving friends, family, teachers and themselves to distraction. Kerstin is intent on winning the Science Olympics at all costs against defending champion Larry Tudgeman.

Next Episode Playing in **13 seconds**



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# PERSUASION VS MANIPULATION IN THE SURVEILLANCE ECONOMY

# Why do they work?



- Shortcuts, heuristics, biases
- System 1 and 2 (Kahneman)
- Very used in privacy domain (Waldman): UX vs transparency



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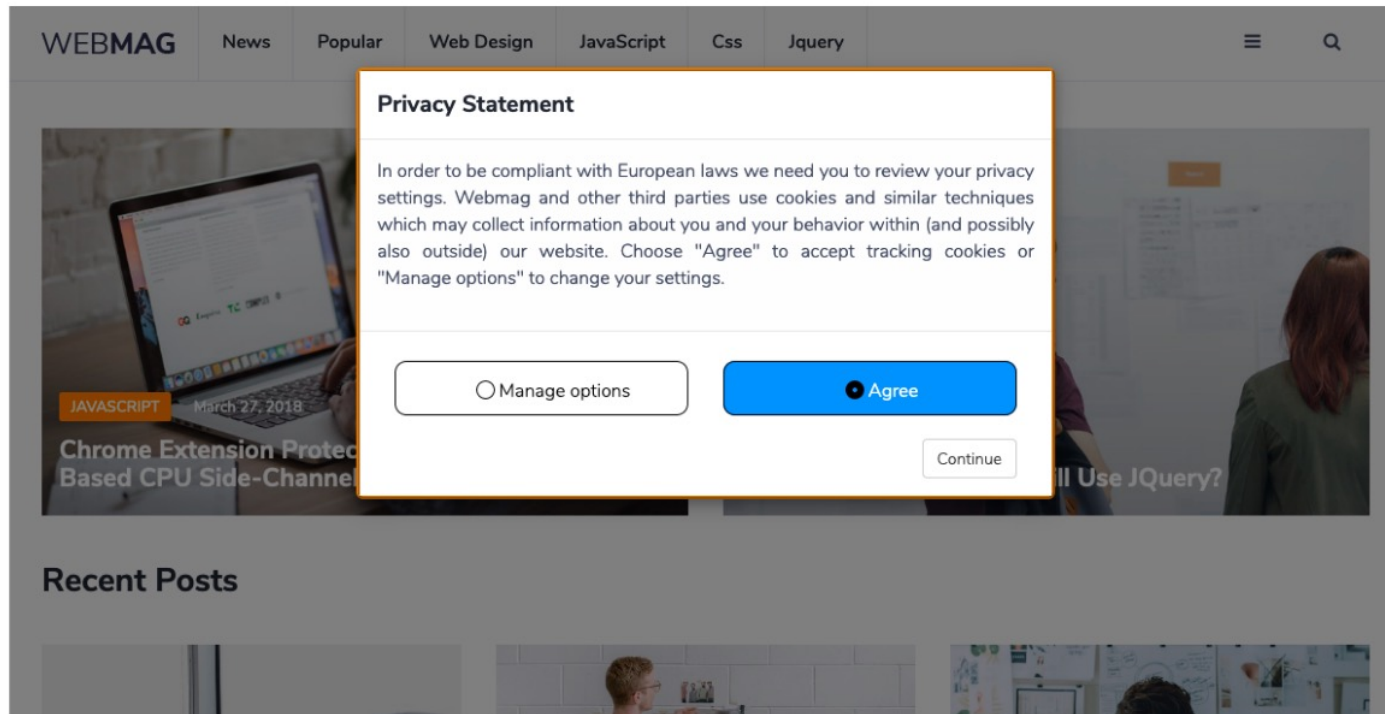
## 6 principles of persuasion (Cialdini)

- |               |               |
|---------------|---------------|
| - Authority   | - Scarcity    |
| - Reciprocity | - Consistency |
| - Liking      | - Consensus   |

# What do we know?



Graß et al. 2021



*Figure 1. Example consent request featuring all three dark patterns default, aesthetic manipulation and obstruction. Website: Webmag*

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- Experiments to identify dark patterns
- Less educated people were less likely to identify dark patterns
- First evidence that we can have a problem of inequalities

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# What do we know?



Luguri and Strahilevitz (2020)

## Study 1: Aggressive vs Mild Dark patterns

- Combine: hierarchy, confirmshaming, forced action
- Mild scenarios: double acceptance
- Aggressive: +40% acceptance
- Problems:
  - We don't know what made the effect, combined patterns

# What do we know?



Study 2: Confirmshaming (persuasion): has barely effects

- Less educated people more likely to be influenced.



# Potential problems: vulnerabilities



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- Other types of vulnerabilities: psychological

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- Other types of vulnerabilities: psychological
- Baseline for regulation

# DESIGNERS' RESPONSIBILITIES



# Designers are mediators of values

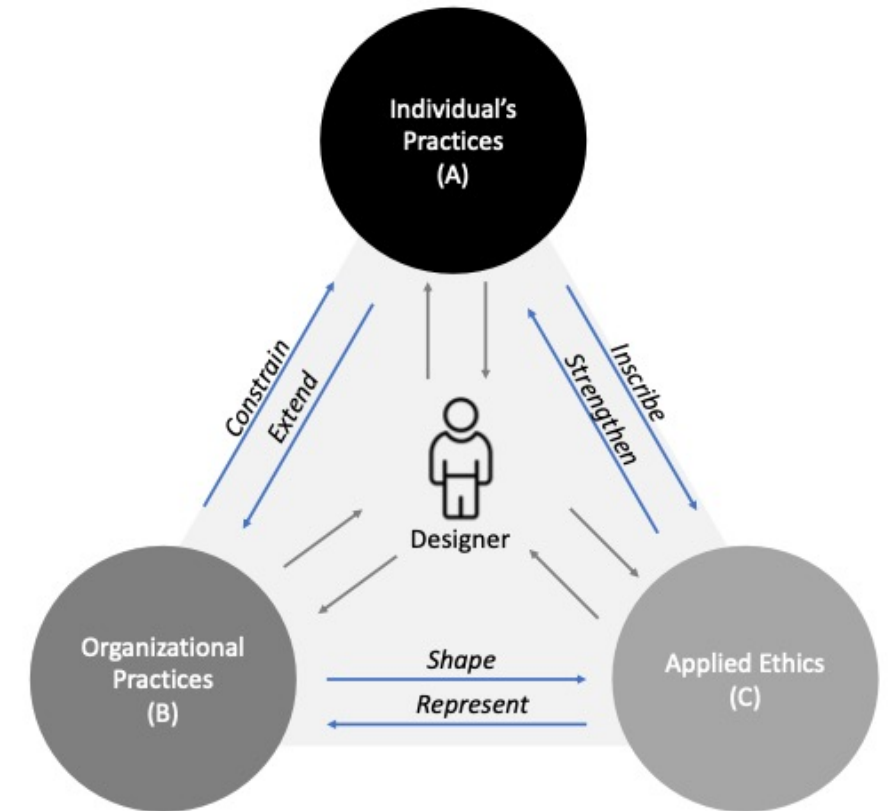


**Applied ethics is a contested but not a resolved discussion**

## **Technology is not neutral:**

- Artifacts have politics (Lingdom),
- Politics of platforms (Gillespie)
- Tensions in design and ethics (Gray)

**Proactive responsibility:** free/open culture, standards, procedures and transparency



**Figure 1: The relationship of the designer to knowledge and work practices via ethical mediators.**

# Choice architecture and UI

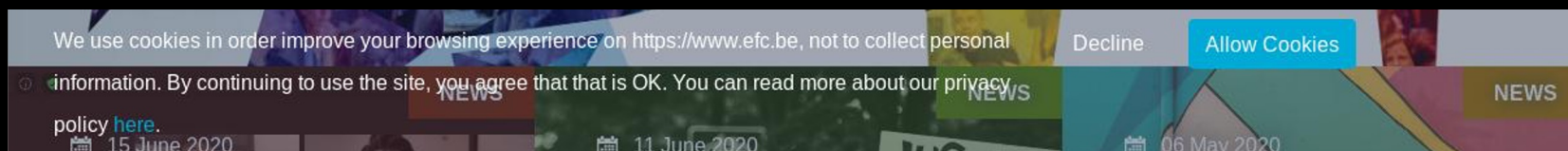
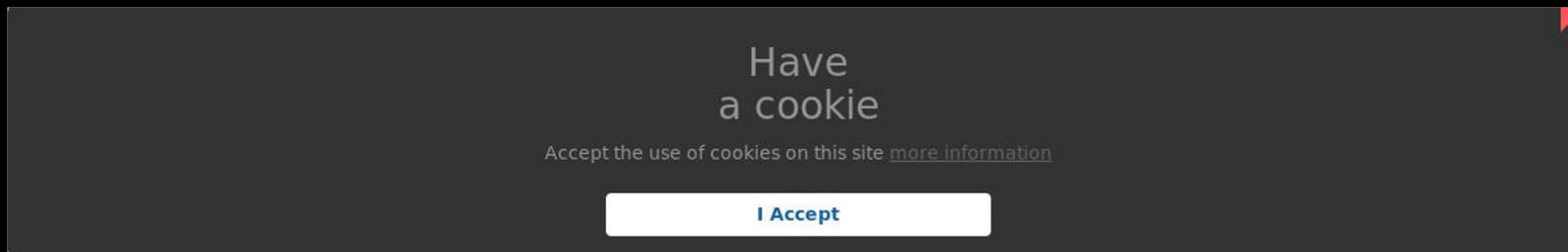


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# Conclusion



1. Hard to disentangle manipulation in design
2. It can be problematic in specific cases of vulnerabilities
3. We need to be careful to regulate - creators have rights!
4. Proactive responsibility of developers: transparency and open standards

THANK YOU!

Share your  
questions!

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